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H I N T S

IN

THE OBSTETRIC PROCEDURE.

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THE OBSTETRIC PROCEDURE.

BY

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TO
THE PHILADELPHIA COUNTY MEDICAL SOCIETY,
WHOSE MEMBERS SO KINDLY RECEIVED
THE
SUBJECT MATTER OF THIS VOLUME
AS THE
ANNUAL ADDRESS OF 1874,
WITH
GRATEFUL REMEMBRANCE OF THE MANY HONORS AND PROOFS
OF CONFIDENCE RECEIVED THEREFROM,
AND WITH AN
EARNEST APPRECIATION OF THE VALUE PERSONALLY
OF SUCH ORGANIZATIONS,

This Work

IS RESPECTFULLY DEDICATED
BY
THE AUTHOR.



P R E F A C E.

THE kind reception accorded by both the medical journals and the profession, to the ANNUAL ADDRESS entitled "Hints in the Obstetric Procedure," delivered by the author before the Philadelphia County Medical Society, and an almost constant demand for it from all portions of the country, have emboldened him to rewrite the subject matter of that address, and to present it in its present form.

No attempt is made to exhaust the subject, or to offer a complete *vade mecum*. The author merely desires to present, as clearly and compendiously as he may, his views in certain matters connected with the obstetric art, with a hope that he may thus contribute to a better performance of this art, and that, while he is

aiding his fellow practitioners, he may divest this branch of medicine of much of its mystery and dread—a dread too often shared alike by physician and patient.

He would earnestly urge upon those who propose to practise obstetrics, that they should make themselves thoroughly masters of the science and the art, that they may respond to each call to the lying-in chamber with a proper feeling of confidence in their knowledge and skill, and at the same time a true appreciation of the great responsibility they thus assume.

The great bug-bear “Meddlesome Midwifery” has too long acted to deter the physician from the performance of his duty as the aid, the assistant of nature in this sacred act of the wife and mother.

It is a great source of regret that so many of our brethren, even of those who have but recently emerged from the care of the “fathers in medicine,” still adhere to exploded dogmas and old wives’ fables, and are too ready to allow the parturient woman to be guided by the ideas, and even follies, of those around her,

in place of themselves assuming the post of director—yea, master of the situation. Such seem content with the formal visit, and inquiries of the nurse, who soon comes to ignore the doctor; and all goes well, more by good fortune than by good management. These gentlemen would have greater assurance of a successful result in their cases if they would fully discharge their duty as physicians—care-takers—and would deem nothing too small or unimportant in the lying-in chamber.

“The old axiom, ‘meddlesome midwifery is bad,’ has had great force in obstetric practice; but it is, perhaps, better adapted to ignorance or partial knowledge than to perfect comprehension of the mechanical and motor phenomena of natural labor. I have no doubt the time will come when these will be so well understood that the finger of the accoucheur will be in accordance with every change in the passage of the child during parturition. Proverbs are always one-sided. The phrase quoted has, no doubt, been useful in preventing improper interference, but it has also a tendency

to the prevention of interference when this is both useful and necessary.”*

“Then the physician becomes not the substitute for, but the handmaid and assistant of nature. As such, the intelligent physician goes to the bedside of his suffering patient, in the sore hour of her travail, with a full knowledge of the extent of his resources, conscious of his powers, and strong in their possession, he anticipates and prevents danger. ‘Meddlesome midwifery is bad.’ Delay and timidity in operating are bad.”†

* Dr. Tyler Smith, Lectures on Obstetrics, p. 367.

† Dr. J. S. Parry, Amer. Journ. of Obstetrics, Aug. 1873, p. 191.

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HINTS

IN

THE OBSTETRIC PROCEDURE.

False Pains.

TOWARDS the close of the pregnancy, and prior to the inception of the expulsive pains, the patient, especially when a primipara, is frequently attacked by more or less powerful irregular contractions of the uterus, commonly known as "false pains." Some suffer in this way for weeks, and are consequently rendered weak and irritable, and less able to endure the true pains necessary for delivery when that act commences. Women, subject to this complication, are generally found to dread these pains more than they do those of full labor. Now, as there can be no advantage in allowing these to continue,

but, on the contrary, a positive disadvantage it is the duty of the medical attendant, immediately upon recognizing their nature, to interpose for the relief of his patient. In order to truly diagnose this condition, a vaginal examination is imperatively demanded.

In this connection, it is proper to call the attention of the obstetrician to the importance of making such an examination before he quits the lying-in chamber, as, without it, he can positively know nothing. Properly made, such an examination reveals the exact state of the organs concerned in parturition, and gives him the key to his position. Hence, it must be insisted upon, and the physician should not allow himself to be detained without it. It may save many weary hours of waiting and watching. In the experience of the author, on one occasion, it revealed the fact that the patient was not pregnant, though her pains had apparently been recurring at regular intervals for several hours prior to his being summoned.

At this examination, he should note the condition and position of the os uteri, whether high up or low down, rigid or soft, closed or patulous; the nature of the pains, their relative frequency and continuance, their effect upon the presenting part of the child, and whether the circular fibres of the os are disposed to relax before its advance; the condition of the enveloping membranes, whether intact or broken, allowing the waters to drain off; and also, whether the rectum is empty, or, as is too often the case, it is filled with hard feces.

He is now prepared to give a prognosis, and decide as to the probabilities of the delivery. But let him be cautious, lest he promise more than will be performed. Those who have had much experience in the obstetric art can readily recall numerous instances where hours have elapsed before delivery, though at first there appeared every reason to anticipate a speedy relief.

If the os is high up and reached with difficulty, but slightly patulous and rigid, it

may be concluded that the delivery will be slow and tedious, or that labor has not commenced. Under these circumstances, the physician should take measures to relieve his patient of what is, to her, useless and exhausting agony. Let him at once administer a full dose of some anodyne to relieve this condition. While, under peculiar circumstances, the preparations of opium will be found useful, the best remedy is CHLORAL. In the vast majority of instances, this article will secure to the patient the most complete and refreshing sleep, from which she awakes free from pain, to continue so until the true labor commences, or the false pains are replaced by the proper, regular contractions of the long fibres of the uterus, and a second examination will reveal the fact that during this interval the rigid os has yielded, and complete dilatation has occurred.

On this point, I must dilate at some length upon the value of chloral. The experience of all who have employed it shows that it is particularly applicable in these cases. Schroe-

der says: "Chloral has been given in tardy and exhausting labors. After an hour's sleep, on awakening, the labor was very rapidly terminated by powerful pains. We have also observed that by the use of chloral in cases where the uterine action was very painful without being efficacious, the labor assumed an instantaneously rapid course, although the intervals between the pains had considerably increased in duration."

It would appear that while chloral produces a calm refreshing sleep, it does not by any means entirely check the progress of labor when this has commenced. For it is invariably found that dilatation has continued, and so completely is this generally accomplished, that on the patient awakening, a few quick pains will often complete the delivery. I regard the use of this article as producing results similar to those of anæsthetics in Surgery, and therefore similarly indicated. While it relieves, to a marked degree, the pains of travail, it also contributes to a safe and speedy convalescence.

These false pains generally occur in persons

of a rheumatic or neuralgic tendency, and are found to prevail more frequently in seasons predisposing to this form of disease. In some cases, they are readily controlled by enemata of morphia or chloral. As the latter remedy is sometimes found to be disagreeable when exhibited by the mouth, it may be well to remember that it has an excellent effect when thrown into the rectum in a solution of gum acacia or starch.

At the time of making his first visit, the physician, by proper inquiry, may learn much of the probabilities of the case. Thus, if the term of pregnancy is not completed, these pains, when allowed to continue, may lead to premature labor, and it is, therefore, more urgent that they should be controlled.

If there is hemorrhage, a careful investigation becomes important, especially when it occurs about the seventh month, lest placenta prævia is present; or, the passage of clots may reveal concealed hemorrhage, which is always more or less dangerous.

Slow Dilatation.

Where the os uteri is dilatable, but when from any cause, as insufficient expulsive pains, the progress is slow, much can be done by aiding the dilatation. It must not be understood by this that forcible dilatation is intended, though that sometimes becomes necessary; all who have had much obstetric experience will agree that in very many instances, by the gentle, but firm sweep of the finger around the advancing part, within the os, the process of expansion has been greatly accelerated, and the part speedily caused to emerge from its grasp. Of course, this manœuvre must not be attempted if the membranes have not yet ruptured, as otherwise an additional cause of delay may be introduced. The rupture of the membranes will claim attention further on.

Still further to aid the complete opening of the os uteri, the gravitation of the child and its pressure upon the os may be invoked. For this reason, the patient should be urged to remain out of bed, and if possible to walk about

the room, aided, when necessary, by her attendants. A double gain is the result: the dilatation is aided, and the child is kept in a position more favorable to delivery, while the woman is comforted by the knowledge that she is helping herself. She is thus less liable to become irritable and discouraged.

Again, while she remains in bed, she is more or less inclined to gloomy forebodings, and to become impatient under the impression that every pain should be the last.

For this reason, it is always best to explain to her fully her exact condition, unless some special cause forbid. Especially to a primiparous patient is this important, as all is strange to her, and she dreads everything, and often looks for impossibilities. It should be explained that this is merely the stage of preparation for delivery, and much of her anxiety and impatience will be relieved. Another point is important. As long as the medical attendant remains with the patient, she feels a momentary expectation of delivery, and is tempted to demand his constant aid, and feels

neglected unless it is extended. Hence, it is never advisable for him to remain when he finds his services are not and will not be in immediate demand. Let him give explicit directions as to quiet, etc., and leave, at least for a time. During this interval, as nothing but exhaustion can be gained by the efforts of the patient, she should be counselled to bear her pains quietly, and make no expulsive efforts. At this stage, particularly when dilatation is very slow and painful, the value of chloral is marked. Even when not given in sufficient doses to produce sleep, its benefits are shown by obtunding sensibility, without in the least interfering with the process of dilatation. After a sleep or rest more or less prolonged, she awakes to vigorous expulsive efforts, and for which she has now renewed strength. In nearly every instance, an examination reveals that the circular fibres of the os have fully given way, and that dilatation is complete.

The reverse of this picture is seen where the patient is permitted to labor hour after hour, constantly expecting delivery, and constantly

being disappointed, until, exhausted, she lies with scarcely an effort to bear down, and at the last, instrumental aid becomes imperative, perhaps to save both lives, and the patient experiences a tedious recovery, and has generally added to it the necessity for the use of the catheter for days, even if other and more dangerous symptoms do not supervene.

It is in just such cases that the inexperienced physician is tempted to employ ergot. Nor does this temptation come solely from his desire to succor his patient, for those around, not understanding the cause of delay, generally attribute it to insufficient pains and expect that the "forcing medicine" will give them the proper strength and frequency. (*See Ergot.*)

Inefficient Pains.

The lack of expulsive power in the contractions, is often the result of want of sleep. The more prolonged the first stage, or that of dilatation, the more likely are the subsequent

pains to be wanting in power. Hence, an additional advantage is derived from the exhibition of some narcotic, giving sleep, and shortening this stage.

The proper method of employing ergot, etc., will be explained hereafter.

There can no longer be any doubt that opium frequently acts favorably by increasing the efficiency of the pains. Particularly is this observed where nervous excitement is present. Chloral has been observed by the author in repeated instances to produce a similar effect. Therefore, when the pains are quite inefficient, before having recourse to ergot, the physician should employ one of these, preferably the latter, in sufficient dose, say one grain of opium, repeated if necessary, or fifteen to twenty grains of chloral. So marked has been the increase in power of the contractions after the use of chloral, that the author has been accused of using "the forcing medicine," meaning ergot, in several instances.

A careful examination should always be made, as the pains will sometimes be rendered

inert by the bladder being loaded with urine. When this is the case, employ the catheter, and evacuate the bladder.

In this connection, we may allude to the occasional occurrence of CYSTOCELE. A portion or the whole of the bladder is driven down into the vagina in front of the advancing part, acting as a formidable obstacle to the delivery and being liable to rupture at any moment. In such cases, the male catheter will be necessary, the female being too short, and often the compression and deviation of the urethral canal are so great that the bladder can only be reached by a gum catheter. Should the physician fail to pass the instrument in the ordinary position, the patient may be made to assume that upon her knees and elbows, when the catheter will rarely fail to pass with ease into the bladder.

Another mode of increasing uterine action, is the passage of the gum catheter within the os uteri and carrying it around between the child and the womb. This is particularly useful prior to the rupture of the membranes,

but it has also been found of service after the partial evacuation of the liquor amnii.

The application of the warm douche is another plan, and one which will act a double part. It excites the womb to renewed action, and aids the dilatation when that is tardy. This is more especially of value where the labor is rendered tedious by the rupture of the membranes at an early moment, and prior to the dilatation of the os.

The use of the air-bag or colpeurynter is worthy of consideration. Whether the membranes are intact or are ruptured, this instrument proves a valuable means to aid dilatation and also excite the contractions of the uterus. The bag should be passed well up to the os, and then rapidly filled with air or warm water; the latter is preferable, as it can exert more power, being less compressible than air.

Externally, friction to the body of the womb will serve to increase its contractions, just as we find it to do when we are about to deliver the placenta.

Along with friction, the physician may

resort to pressure of the whole body of the uterus, as it were supplementing the contractions. This should be performed by placing both hands side by side upon the abdomen over the womb, and making firm downward pressure at the moment of a contraction, imitating the pains by increasing the pressure and then gradually lessening it. When an intelligent nurse or assistant is at hand, the physician may employ such aid in this manœuvre, and he will see the beneficial effects at each effort. Often, just at the moment of delivery, the head is tediously delayed in its exit, and this plan will obviate the necessity for the use of the forceps.

This method, however, can hardly prove of much value unless the dilatation is almost or wholly completed, and is not recommended except where the delivery has been checked by the pains having become weak, and when the presenting part is already about to make its exit. In other cases, where the head is still high up, the employment of the forceps is indicated.

Where the head has been delivered, and the shoulders are delayed, this means becomes of great value; also, when there is a breech presentation, such aid to the uterus will often speedily bring the part down, or facilitate materially the other efforts of the physician.

Sometimes, this pressure may be performed by means of a broad piece of muslin placed above the fundus of the womb, and the ends passed diagonally down on either side of the woman, and drawn upon by an assistant during each pain.

The physician should never neglect to see that the bladder and alimentary canal are not by their loaded condition aiding to delay the delivery. To the former, allusion has already been made. When the rectum is distended with feces, its evacuation by a full injection of castor oil with soap and water will frequently produce a marked and agreeable change in the nature of the pains. In this connection, it may be proper to mention that the administration of castor oil early in labor is often found to aid in the dilatation of

the os. The author is not prepared to endorse this article in preference to any other laxative, though the claim has been made that it has a specific effect upon the sphincters of both the rectum and uterus.

The use of an enema simply of warm water, often produces an equally good effect, and at the same time tends to make the delivery a much more comfortable matter both to patient and physician. Instances are constantly seen where the patient forbears to aid the pains and endeavors to prevent them, lest she should evacuate the contents of the rectum. Attention to this point is always essential and useful.

Before leaving this subject, allusion must be made to the use of ELECTRICITY. A number of writers have detailed cases where, by the passage of an electric current through the uterus, one pole having been placed upon the abdomen over the fundus uteri and the other passed within the os, the pains have been greatly increased, or provoked, and the delivery speedily accomplished.

The physician should faithfully employ these methods, and never expose either child or mother to the dangers of a protracted labor until he has exhausted every means at his command.

Under the head of dilatation, we may refer to the use of BARNES' DILATORS. These are small gum bags made with a contraction in the middle, fiddle shaped, which insures their retention when placed in position so that the contracted part will occupy the os uteri. When expanded either by air or water, a powerful force is brought to bear upon the os, and its dilatation is rapidly effected. Of course, the use of this means is indicated only under particular circumstances; as when the os is rigid, undilatable, and the membranes are ruptured; or when, from any cause, speedy delivery is imperatively demanded. The use of chloral, however, as previously indicated, will generally effect all that may be required.

Ergot.

As a parturifacient, ergot has generally been regarded as pre-eminent. But it is a serious question as to when its use is proper and indicated. And first, it may be well to indicate when it should not be employed. When an examination reveals the non-dilatation of the os, ergot is positively contraindicated. If it acts at all, it only serves to lash the womb into a fury, it sets up an irritable condition in that organ which can do no good, and may even result in producing rupture of the uterus. Therefore, before this agent is employed, the os must be well dilated, or soft and dilatable.

Again, by its improper use, by causing the walls of the womb to grasp the body of the child as in a clonic spasm for some time before it can possibly be delivered, the death of the child is rendered almost certain.

It is also contraindicated when some mechanical obstacle exists; for instance, disproportion of the head and the pelvis; deformity of either; the presence of a tumor, etc.

Ergot becomes of value when, by the feebleness of the pains, the delivery is retarded, while the presentation is natural, and the os is dilated or readily dilatable, the head still remaining high up. When the head is low in the pelvis, of course the forceps should be preferred. The advantage of ergot when the uterus is inert, is that it causes that organ to close as rapidly as the delivery is effected, and obviates any tendency to hemorrhage. When, from this occurrence in former labors, or from the general feebleness of the uterine contractions, there is reason to apprehend post-partum hemorrhage, ergot is especially indicated, and should be exhibited in a full dose, so as to obtain its complete effect upon the expulsion of the child.

As the knowledge of the value and use of the forceps becomes more general, and also of the only proper method of causing the uterus to deliver itself of the after-birth, ergot becomes of less frequent employment.

Quinine.

As an oxytocic, this article has been frequently lauded of late years. There can be no doubt that it really acts as a stimulant to the action of the uterus, and, unless contraindicated, may be exhibited in those cases where the delivery is retarded by reason of inertia of the womb.

Dr. Albert H. Smith of Philadelphia says:*

“It increases the activity of the normal uterine contractions: the pains becoming more frequent and more intense, the expulsive power being greater, while the yielding of the circular fibres of the os is more prompt; the contractions maintaining their proper intermittent character, the relaxation and rest in the interval being complete; showing in this respect an entirely different action from the continuous spasmodic contraction caused by ergot. . . .

“It promotes permanent tonic contraction of the uterus after the expulsion of the placenta.

* Transactions of the College of Physicians of Philadelphia, 3d series, vol. i. p. 188.

“It diminishes the lochial discharge to a normal standard.

“Its use is followed by less after-pains than usual in a majority of cases.

“It reduces the frequency of the mother’s pulse, and relieves the nervous demoralization so often seen in the first stage of labor.

“Given during parturition, it never disturbs the brain or causes its usual unpleasant effects, even in patients who at other times are very susceptible to its influence.”

He concludes—

“That quinia has no inherent property of stimulating the gravid uterus to contraction; being inert as to any effect upon the womb in a quiescent state, and having no decided action in accidental labors at any period of gestation.

“That to its property as a general stimulant and promoter of vital energy and functional activity, and to that alone, is due its influence upon the uterus in normal parturition; producing then no action peculiar to itself, but merely increasing the power of the uterus to expel its contents by its own natural method, convert-

ing what is a defective or even pathological action into a simple physiological process.

“That by availing ourselves of this power, we may by administering full doses of the sulphate of quinia at the onset of labor favor the rapid and safe termination of what might otherwise be a tedious and exhausting work.”

The usual dose is fifteen grains.

Rupture of the Membranes.

In making an examination, care should be observed lest a rupture of the membranes is produced. Hence, the examination should not be made, except in the interval between the pains. The membranes then being flaccid, with care, the finger may be swept around, so as thoroughly to inform the physician as to every point necessary for him to know.

This is of great importance, for it must be remembered that a premature rupture of the amnion and the consequent evacuation of its contained fluid, will make what is known as a “dry labor.” Again, as, under certain circum-

stances, turning may become necessary, it should be remembered that this operation becomes extremely difficult after the waters have been evacuated for some time. When the membranes are intact, the fluid forms a beautiful wedge-like point to produce the dilatation of the os. When this is wanting, we have the blunt presenting part taking its place, and dilatation generally goes on more slowly and laboriously, and with greater risk to the child.

But when the os is fully dilated, the toughness of the membranes may then act to retard the delivery. When this is the case, a rupture may be effected by pushing the finger firmly against the membranes during a pain, or if they are exceedingly tough, almost like parchment, it may become necessary to employ the nail of the fore-finger, notched like a fine saw, with which to tear them open. Instances are quite common where great delay has been caused by the non-rupture of the amnion, and where delivery has been immediate when this manœuvre was adopted. Even when delivery does not at once occur, the rupture of the mem-

branes can be of no injury, and often, by relieving the overloaded womb of a part of its contents, the power of contraction of the uterine muscles is increased, and the pains are thus rendered more effectual. It is also believed that the contact of the child directly with the womb by the rupture of the membranes, acts as an excitant of uterine contraction, and is, hence, recommended as one of the remedies for uterine inertia.

Position.

In repeated instances, after many weary hours of labor with scarcely any advance of the child, delivery has been speedily accomplished by a change in the position of the woman, as in her irritable and restless condition she turns from side to side, rolls upon her back, or rises to relieve the bladder or rectum.

This is a lesson which should be heeded by the physician, who, too often, rigorously insists upon the woman remaining upon the side, expecting the delivery momentarily. Nature

appears to urge the woman to assume that position which is most advantageous for the expulsion of the child, and we find her instinctively endeavoring to aid herself in this way.

The position in labor varies with nations, but when left to herself the patient is invariably observed to take that position which will cause the child to gravitate toward the point of exit. This subject is one which is eminently worthy the attention of the student of midwifery, as he will find in the habits of women at this time, much of value and interest.

In America and England, the position is upon the left side. In Germany and France, as a general rule, it is upon the back. In ancient times, labor-chairs of a peculiar form were employed, and are even yet found in some places. A common practice at one time was to fasten two chairs together by the adjoining legs, the woman then sat, as it were, between the two, holding on by the backs. Among the people of Ireland the position upon the knees is preferred, and would seem to be a very suitable one.

The obstetrician should, from time to time, notice the position and rate of advance of the child. When it is delayed, he will often find the presenting part pressing firmly against the walls of the pelvis at one point, which is the cause of the delay. He should then so place his patient as to remedy this condition, and to cause the presenting part to occupy a position as near the centre of the excavation as may be. Much of the expulsive power of the contractions is lost by this pressure of the part against the walls of the passage. The advance should be in a line perpendicular to the plane of the pelvic straits. Thus, friction to a great extent is avoided, and the action of gravitation is fully brought into play.

Of course, as the passage through the pelvis is not a straight but a curved line, the position may require to be changed from time to time. When the pressure is to one side, it will be found that the womb is lying obliquely to the opposite side. This may be remedied by a proper support of the abdominal tumor by means of pillows placed beneath the fundus

and body of the womb. In many instances, a rapid delivery will follow the adoption of such a support.

Prior to the entrance of the presenting part into the pelvis, the most favorable position will be that of a half-sitting posture. Nothing will so forcibly and fully explain this problem of position as a careful study of the relations of the child to the mother, by means of a manikin.

The Vectis.

When dilatation is complete, but the head is slow in engaging, by reason of a want of dip of that part, the vectis proves of great value. It must always be remembered that this is a tractor, not a lever, for as a lever it becomes capable of great injury, especially when any point of the mother is made the fulcrum. When properly constructed, it gives great power as a tractor, and enables the obstetrician to speedily terminate the labor when the forceps would otherwise be requisite.

It is easy of application and less formidable than the forceps. Of course it cannot be employed unless the os is dilated, and is almost useless in the absence of uterine contractions. When the head is detained by a want of dip, that is a greater or less departure of the chin from the breast, the vectis may be employed to bring down the vertex and complete the delivery. Cases are constantly met with where the anterior lip of the os forms a cap or sling over the head, thus greatly lengthening the labor; here the vectis acts like a shoe-horn in aiding the passage through, and the termination of the labor. When it becomes necessary to have a fulcrum, the hand of the operator should be employed.

The Forceps.

In behalf of the suffering woman, in deprecation of the evils to which a prolonged labor renders her liable, for the sake of the many infants unnecessarily sacrificed, I earnestly urge every one who attempts to

practise the obstetric art, to provide himself with a proper pair of forceps, and then to perfect himself by thorough study in their use. Perhaps a large majority of cases are permitted to suffer hour after hour without the use of this invaluable aid, simply because the attendant is afraid or unable himself to employ them, and hesitates to avail himself of the benefit of a consultation, lest he thus lose credit with his patient and her friends. In nothing is our selfishness so apparent as when, intrusted with the health and the lives of two beings, of one whose loss can never be made up, and who is truly beyond value, the physician hesitates in the performance of his duty, lest his reputation and his pocket may suffer by it.

At this important moment, he should regard duty as paramount to everything. He is watched by eagle eyes; every phase of his conduct, every line of his countenance, is noted. Much, very much, of his future depends upon the report that shall go from that room in relation to his actions. It matters not what may be the social condi-

tion or position of his patient; she is a woman in the agony of her most sacred office, her great calling in life, and she demands and should have all that skill, science, and sympathy can give her.

He who hesitates is lost. For the practice of the "divine art of obstetrics," the physician must be a man of prompt decision.

I am not of those who would counsel a resort to instrumental aid when unnecessary, nor is it justifiable to have recourse to it for purely selfish purposes. A tired doctor who wants his rest! But, how often does it become an urgent necessity, and alas! the medical attendant cannot respond to the calls of suffering humanity.

It is pleasant to note that yearly this valuable adjunct is coming into more frequent use. It is gratifying to know that accoucheurs are learning to look upon the application of the forceps in a far different light from that in which it was formerly viewed. The early use of this instrument would have saved very many children reported as still-born, and

would equally tend to a more speedy and happy recovery of the woman herself. When a resort to the forceps becomes the rule in place of the exception, when physicians cease to boast that they "let nature take her course," regardless of what that course may be, then will parturition assume a less dreadful appearance, and one great cause for the avoidance of pregnancy will have been swept away.

Perhaps, also, this delay in invoking instrumental aid is greatly due to the old cry of "meddlesome midwifery," a cry which has done incalculably greater harm than all the errors of those who have bravely disregarded it.

It may be asked how long shall we wait, or rather, how early shall we interfere? When the os is fully dilated, or so dilatable as to oppose no obstacle, and no advance has been made for one hour, it is time that help should be given. Nor is it advisable in many instances to wait this long; as soon as all advance has ceased, particularly when the membranes are ruptured, and the amniotic liquor

evacuated, then it should become the desire of the physician to terminate the labor by employing the aid of the forceps.

In this connection, many excellent authorities might be quoted, and the evils resulting from prolonged and tedious labor might be specified, but this is unnecessary. The physician who has once intelligently applied the forceps, and experienced the pleasure of relieving his patient in a few minutes from what seemed likely to be a labor of hours, will ever after feel himself armed with a new and valuable power.

Failing to use it, he seeks to supplement the pains by other means, often of questionable utility, ergot for instance, capable of but little good and often powerful for harm.

The Placenta.

The child having been severed from its connection with the placenta, the physician should at once give his attention to the completion of the labor by the delivery of the

after-birth, which of course comprises both the placenta and the membranes.

There seems to be a rule with many to allow a certain time to elapse before any effort is made to aid in this delivery ; some even waiting for an hour. When the womb does not at once close itself and expel the balance of its contents, there can be no good reason for delay on the part of the attendant. The patient is generally in great need of repose, which is prevented, and she is kept in a state of inquietude by a nameless dread of trouble yet in store for her.

The advantages of an immediate delivery and the disadvantages of delay are so evident that they scarcely need recapitulation. The uterus, relieved of its burden, without any obstruction, is enabled at once to commence the process of involution, and by firmly closing its sinuses, hemorrhage is prevented, and the patient is not allowed to waste that vital fluid for which she will have so much need in the performance of her duty as the fountain of life for her offspring. While the placenta remains,

clots are more liable to form, which, by their presence, give rise to more or less subsequent pains as the womb attempts to expel them. Or the placenta, falling across the mouth of the womb, acts as a plug, and gives rise to concealed hemorrhage, often of an alarming character.

In the management of this, the third stage of labor, the plan of grasping the fundus and body of the womb through the abdominal parietes, is the most sure method of accomplishing the whole object. The purpose is not only to remove the balance of the contents of the womb, but also to leave that organ firmly and permanently closed. In very many cases, the placenta will be found in the vagina, and may readily be removed without further trouble, but, under all circumstances, there may be seen at a glance the benefit to be obtained by thus causing the womb to close itself.

It is too much the habit, both of the nurse in the absence of the physician, and, indeed, of the physician himself, to endeavor to bring away the after-birth by pulling vigorously

upon the cord. This frequently results in the breaking of the cord, necessitating the insertion of the hand inside of the womb, and without a guide to seek the edge of the placenta ; or, it may produce more or less inversion of the uterus, and thus give rise to alarming symptoms.

In this connection, it is proper to allude to the danger of the method so plausibly taught by Cazeaux and others. This plan is to draw upon the cord with one hand, while two or three fingers of the other are passed up along the front of the cord, pressing it backward, thus causing it to play over a sort of pulley. The theory is that the traction is thus made continuously in the line of the pelvic and vaginal curve, whereas, simple traction would draw the placenta forward against the anterior border of the uterine opening, expending much of the traction uselessly. But, how frequent is it that the cord is ready to give way and separate even by slight traction ! Now, by this plan, we offer an additional inducement for the attendant to exert strong traction

upon the cord, and that, too, without his hand outside following it down as the mass is being drawn from the uterine cavity.

With firm pressure upon the abdominal walls by the hand of an intelligent assistant, or the left hand of the accoucheur, while gentle traction is made upon the cord, in the vast number of cases, the delivery will be readily accomplished.

The late Professor Charles D. Meigs inculcated the necessity, in place of drawing upon the cord, and thus pulling the placenta broadside against the opening, of reaching up one or two fingers to its edge, and thus unbuttoning it, so to speak. This simple, but truly scientific manœuvre, generally succeeds.

The plan of expulsion, now known as Crede's method, has been employed by many practitioners for years. Dr. Washington L. Atlee assures the writer that he taught and practised a precisely similar plan as early as 1853.

The placenta having failed to come away, by gentle frictions over the uterus, it is found to contract when the fundus and body are grasped,

as above remarked, with one or both hands, and pressure is made downwards and inwards. The fibres of the womb contract and the contents are expelled like the kernel from the fruit-pulp when squeezed in the fingers. An immense advantage of this procedure is that it excites the womb to a tonic contraction which is much less liable to relax and allow of subsequent hemorrhage, and also greatly diminishes the tendency to after-pains, which by some women are dreaded more than the pangs of labor.

As the mass exudes, it should be carefully grasped and twisted on itself a number of times as it is withdrawn. This twists the membranes into a rope, and secures a clean delivery, in place of leaving the torn shreds hanging in and from the parts, to putrefy and give rise to offensive odors, as well as exposing the patient to the risk of carrying this poisonous matter into the blood, there to produce pyæmia.

The Binder.

We have not yet arrived at the point of omitting this in every case. While many women are just as well without it, and indeed we might say all, when we consider the usual condition in which it is found within a very short time after it is applied—like a rope high up just beneath the ribs, acting not only as a source of great discomfort, but also as a means of injury to the patient—still, in very many cases, it is a valuable support to the relaxed abdominal parietes. It generally makes the patient feel more comfortable to have some such support, and care should be taken to see that it is properly adjusted. When it is pinned, the woman should always have room to fill her lungs to their utmost capacity, otherwise she is compelled to assume the condition of one with a broken rib, and to employ the diaphragm almost entirely in respiration, a proceeding which cannot fail to affect injuriously the abdominal viscera, and secondarily, those of the pelvis. Rest is

absolutely necessary for the pelvic contents, that they may recover from the fatigue and strain to which they have just been subjected; hence the importance of avoiding any such condition as will expose them to further disturbance. A bandage applied evenly and pinned so as to afford a gentle support to the woman will add greatly to her comfort.

After-Pains.

A most absurd and even dangerous notion is often held by the attendants, and even among these must frequently be included the physician, that after-pains are a necessary accompaniment with which no interference should be made.

As before remarked, when, by the proper manipulation, the uterus has been compelled to close itself completely, expelling all clots, etc., as a general rule, the after-pains amount to nothing. These pains indicate a womb obstructed in its involution by the presence of some foreign body, as a clot, a portion of the

placenta or membranes, or, as has been known, by the presence of a tumor. In some cases there would appear to exist a peculiar irritability or neuralgic condition of the womb, which gives rise to these excruciating pains. They are called *dolores cruenti* or "blood pains," because they are generally followed by a flow of blood, and in olden times were supposed to be necessary to expel the superfluous blood from the womb.

Whatever may be their origin, the proper remedial means should be employed. The patient is already sufficiently exhausted, and it is exceedingly unwise to allow her to undergo any further suffering. Again, she is in need of repose, which will be more or less broken and unrefreshing by the recurrence of these pains.

A careful examination of the parts will reveal the presence of any foreign body, which must at once be removed ; this done, some anodyne in full dose should be given and repeated until complete relief is obtained.

The late Prof. Dewees was one of the earliest

to recognize the importance of this matter, and to urge the necessity of relief; regarding these pains as an evil of great magnitude. Patients will always be found to recover more rapidly and satisfactorily when thus relieved. Occasionally, these pains are of a neuralgic character, which would be anticipated in persons predisposed to this affection.

Leishman regards them as liable to pass into inflammatory disease, and urges the necessity of attending to them.

French accoucheurs apply belladonna in the form of an ointment, and Tyler Smith recommends an anodyne liniment to the breasts for the relief of these pains. Fordyce Barker prefers Tully's powder, and when the abdomen is tympanitic, the application of turpentine stupes and the employment of turpentine enemata. Almost every accoucheur has a favorite formula for the relief of after-pains. The author has found a solution of chloral and morphia to act very satisfactorily.

In purely neuralgic cases, Prof. Barker applies chloroform liniment to the abdomen, and

administers quinine in five to ten grain doses night and morning.

An additional importance is given to these pains when we reflect that abdominal pain has been regarded and treated as after-pains, or even as the initial stage of inflammatory action, when it was entirely due to

Retention of the Urine.

Much care is often necessary to ascertain whether the patient has passed the proper quantity of urine, and there is constant liability to unintentional deception.

The physician should never fail to assure himself by a careful investigation, in every case of doubt. Instances have repeatedly occurred where the bladder has been enormously distended with but slight discomfort to the patient. The presence of abdominal swelling, particularly when low down, not of a tympanic character; pain on pressure, and which also gives rise to a desire to urinate; a constant desire to pass water, though the patient

has just performed that act ; or a dribbling of water from the parts—should lead to a use of the catheter, which will speedily determine the presence or absence of urine.

This complication may occur from the beginning, or may come on a day or two after delivery. One complete evacuation of the bladder will often suffice, though this operation may need to be repeated once or twice daily for several days. It must be borne in mind that too long an interval between the evacuations may make the trouble more serious, while the complete relief at proper intervals will conduce to a more rapid return of the normal functions.

The operation, small as it appears, often proves extremely annoying and even embarrassing to both physician and patient. It should be performed without any exposure of the parts unless this becomes absolutely necessary.

The following simple manœuvre rarely fails to enable the catheter to be passed. Pass the right forefinger within the vagina at its anterior portion, and find the urethral canal, which

will be felt like a thick cord at that point; draw the finger along this cord to its termination, where there will be felt a small pit or depression, which is the meatus; insert the catheter at this spot, and press it gently backwards and upwards, and it will readily slip into the bladder. Of course, as the catheter is being inserted, its outer end should be plugged, or stopped by a finger kept upon it, to prevent the escape of the urine before the vessel is in place to receive it, or great discomfort will be occasioned to the patient by the wetting of her clothing. Still better to avoid this, and also the necessity of the frequent emptying and replacing of the vessel, the author has affixed to the outer end of the catheter, a section of India-rubber tubing of the same calibre as the catheter, and of sufficient length to reach to a vessel placed at the side of the couch.

In the performance of this operation, no force should be used, as the end of the catheter might be caught in one of the lacunæ in place of the opening of the urethra, and great injury would follow a forcible attempt to push it into

the bladder. The physician is enabled to assure himself that the instrument has passed into the urethra, by feeling it through the walls of that canal with the finger placed as above; and should no urine be discharged, either the bladder is empty, or by reason of an unusual stretching of the canal, the instrument has failed to reach and pass the sphincter, and if necessary a longer one must be used, preferably, under such circumstances, a gum catheter, which should be passed gently up the canal, and, as it were, allowed to find its way.

After Delivery.

The ancient tradition of the "ninth day," it is gratifying to know, is fast becoming obsolete. Regardless of everything, the woman was compelled to remain in bed until after the ninth day. In many instances, this day was looked upon with terror, as more dangerous than any other. Happily superstition no longer sways the minds of our patients and nurses, and they are rapidly giving way to

common-sense views. From the very first, let the patient change her position as she may desire. Let her sit up in the bed, and after the third or fourth day she may be removed to a couch or lounge while the bed is being thoroughly renovated. The constant recumbent position in the bed, especially during warm weather, is uncomfortable in the extreme, and is liable to cause debility. A wise moderation, of course, must be enforced, and the patient must not be allowed to proceed to the opposite extreme, and exert herself or remain too long in a sitting posture. She should be made to understand her true condition, with a womb still much larger than natural; its ligaments and the vagina in a relaxed condition, all tending to produce the various uterine troubles to which females are so liable.

No rule in this matter will do to govern all. Every woman must be a law to herself.

Purgatives.

From time immemorial, a tradition of the lying-in chamber has been "castor oil on the third day." This is not only unnecessary, but generally it proves positively injurious. In common with other minor matters, this has generally been left to the nurse, and she, regardless of circumstances, insists that the customary dose shall be taken. In very many instances, there will be a natural action of the bowels within the first few days, and where this does not occur, a mild laxative, as the citrate of magnesia, may be administered should there be any indications of it being required.

This uncalled-for purgation is often positively injurious, increasing the debility already present; and by the use of castor oil, its griping effects add to the general discomfort.

Prof. Barker thinks the oil is liable to increase the suffering from hemorrhoids, which in very many cases are present.

Hemorrhage.

As this accident of labor frequently occurs after the delivery has been accomplished, that form will be first considered. To insure the most thorough and permanent closure of the uterus at the time of the delivery of the placenta, is to render the probabilities of post-partum hemorrhage extremely small. When, however, it is observed to occur, examine first as to the state of the womb. If that is found like a hard ball low down in the pelvis, it may safely be inferred that the seat of the hemorrhage is not to be looked for there. A careful examination will detect a ruptured vessel in the vagina, in a lacerated perineum, or even in the labia. While this is not at all of common occurrence, still, as it has been encountered, it should be looked for, when the womb seems to be firmly closed. When the seat of the hemorrhage is discovered, it may be checked by the application of compresses soaked in some styptic, as the subsulphate of iron. If external, this is more readily accom-

plished. If a laceration of the perineum be the cause, the hemorrhage may be checked and the womb closed by the introduction of one or more sutures.

When the hemorrhage is the result of a want of tonic contraction of the uterus, efforts should at once be made to secure that end. The clots should at once be removed from the vagina, and the womb should be excited to contract and expel all that may be within it. To maintain the contraction, ergot or quinine should be exhibited in full doses, and a firm compression kept up upon the uterus, either with a compress placed beneath the binder, or by the hand of an assistant. This should be maintained constantly, and examinations should be made from time to time lest concealed hemorrhage should occur. Generally, the irritation of the breasts by friction of the nipples, or preferably by the sucking of the child, will aid in causing the permanent contraction of the uterus.

When, from any cause, the hemorrhage still continues, in spite of every effort, the physi-

cian should not hesitate to throw into the womb with a syringe, some styptic solution, perhaps the best of which is the liquor ferri-subsulphatis. This may be first employed, half diluted with water, but that failing, it may be increased in strength, and should the emergency demand, the full strength of the officinal liquor should be used. Experience has fully shown that this can be relied upon, and that the evils, if any result, are less than the risk of the death which appears so imminent.

Of course, the patient should at the same time be assisted to rally from her sinking condition by stimulants and appropriate food. For the restoration of the blood, we have nothing better than milk, eggs, beef tea, etc.

An important point to remember in all cases of hemorrhage, is the danger of fainting. Now this cannot occur so long as the brain is kept full of blood, and to insure this condition the head should be kept lower than the body. First, remove the pillows and bolsters; then, if necessary, raise the lower portion of the bed so

as to incline the body of the patient with the head down. After a severe hemorrhage, this position should be maintained until all danger is completely past.

As additional means of restraining the hemorrhage, turpentine in emulsion may be exhibited; the solution of subsulphate of iron may be given along with the ergot, and generally proves a very valuable addition. Externally, iced cloths may be placed upon the abdomen, or iced water may be allowed to fall from a height of several feet upon the abdomen. Some have succeeded by the injection of iced water into the rectum or uterus. It is well to remember all these methods, as one may be at hand, or may succeed when others fail.

When free hemorrhage occurs PRIOR TO THE DELIVERY, it may depend upon the presence of placenta prævia, the detachment of the placenta from its position even when not prævia, or the rupture of a large vessel, which may be expected in those cases where varicose veins are observed to be abundant on the thighs, etc.

Here we have reason to believe that the same condition exists within the labia and vagina, and some of these vessels may be broken by the efforts of the patient.

Under all circumstances, when, from the undilated condition of the os, or from any other reason, the labor cannot be speedily terminated, the vagina may be plugged, which will check the flow, and give time for reflection. The best means for this purpose is the colpeurynter, which is easy of introduction, and may be readily removed either entirely or partially to permit of an examination of the parts. It has the additional advantage of acting as a dilator, and thus preparing the parts for delivery.

In the absence of this, rags may be used to plug the vagina, and if necessary, the first of these may be saturated with some styptic.

Of course the patient must be placed in the horizontal position, be kept cool and quiet. Where the hemorrhage is not very great, this alone will often cause its cessation, at least for a time.

The utmost vigilance must be observed, lest the hemorrhage should suddenly recur, and proceed to an alarming extent in the absence of aid. Here, with the colpeurynter at hand, the physician, and even the attendants, when properly instructed in its use, can speedily check the flow.

In all such cases, delivery must be looked to for permanent relief. When the os is in a condition proper to permit the passage of the child, the rupture of the membranes will generally check the hemorrhage, at least to a great degree; then, the delivery may be accomplished by any of the appropriate means.

When the placenta is more or less before the way, the hemorrhage is best controlled by introducing the fingers, or hand if necessary, and detaching completely that portion of the placenta which is already partially separated, and from which the hemorrhage proceeds; the membranes should next be ruptured, and the presenting part of the child comes down and forms a plug, which checks the hemorrhage, almost if not entirely. Time is now allowed

for the pains to deliver, or if necessary, this may be done by the application of the forceps.

In all such cases, full and permanent contraction of the uterus should be insured by full doses of ergot.

In the absence of the forceps, the delivery may be performed by turning. Nor is it necessary to wait until the os is fully dilated. As soon as the dilatation is sufficient to permit the passage of the hand in order to reach the feet, the effort should be made to reach up and bring down one or both feet.

A guarded prognosis relative to the child should always be given, for, in the large majority of cases, its death is certain.

Convulsions.

The limits of a work like the present will not admit of anything like a full exposition of the causes for and the kinds of convulsions liable to attack the pregnant or parturient female. The author, merely wishing to prepare the practitioner for the emergencies of the

obstetric art, will content himself by indicating the resources at command under such circumstances.

Generally, the physician is not aware of the approach of this complication, until like a clap of thunder it bursts upon the startled attendants in the lying-in chamber.

It may be anticipated when the patient shows unusual symptoms of drowsiness, headache, interference in vision, noises in the head, or even a marked and sudden change from her natural amiability to great irritability. In short, the physician should view with anxiety any unusual symptoms which suddenly occur, and particularly so, when there have been previously much swelling of the feet or hands, and puffiness of the face.

With such a manifestation, a full dose of bromide of potassium or of chloral, or both combined, as circumstances may dictate, will often mitigate these symptoms, and carry the patient with safety to the termination of the labor.

When a convulsion does occur, at once

procure a cessation of the attack by ether or chloroform by inhalation. At the same time, enemata of chloral may be thrown into the rectum. The spasm having been terminated, prepare to deliver as speedily as possible. The bladder must be evacuated if necessary, by the catheter, and the rectum by stimulating enemata, and if there has been previous constipation, free purgation should be induced by the appropriate remedies. Perhaps the best article for this indication is the croton oil, which can be placed upon the tongue, and generally acts very promptly.

Revulsives may be employed, as cold affusions to the head, mustard-baths to the feet and limbs, sinapisms to the whole length of the spine. So soon as the patient can swallow, if there be the slightest indication of a return of the spasm, give full doses of chloral by the mouth. This is almost a specific, and rarely fails to counteract the convulsive tendency.

The most profound quiet must be enforced. Vaginal examinations should be made as

seldom as possible, unless the patient is under the anæsthetic influence.

As efforts to produce dilatation are extremely liable to reproduce the convulsions, the use of the dilator is of doubtful propriety. Doubtless, free venesection in appropriate cases will prove of value, but such cases are more rare than would be supposed. It would be the height of absurdity to bleed a patient already suffering from anæmia. This could only be justifiable in cases of plethora.

The action of the anæsthetics, and especially of the chloral, while checking the spasms, tends to procure full dilatation, and the moment that this has occurred sufficiently to permit of the passage of the forceps, that aid should be invoked. When the breech presents, or when for any reason the use of the forceps may be inadmissible, the feet should be brought down and the uterus emptied of its contents.

This generally causes every untoward symptom to disappear. Should the reverse obtain,

continue the chloral and other remedies as they may be indicated.

During the convulsions, care should be taken to prevent the patient from injuring her tongue, by the insertion of a cork or pad between the teeth; and by gentle restraint she should be kept upon the bed, and not allowed to suffer injury by forcible contact of her head or limbs with any portions of the couch.

Artificial Respiration.

Having delivered the child, it becomes the duty of the accoucheur to see that its respiration is fully and freely performed. When there seems a hesitancy in this act, the child is generally excited to a full inspiration by a sudden dash of cold water upon its body, or by a few vigorous slaps upon the buttocks, or by alternately plunging it, first into a warm then into a cold bath. In every case, the mouth and throat should first be thoroughly cleared of mucus or any other foreign body that may obstruct the air passages.

If the child presents an apoplectic appearance, the umbilical cord should be cut and permitted to bleed, at the same time rubbing the limbs to promote the circulation.

In the hurry and excitement of the occasion, the physician should not forget this division and bleeding of the cord, as instances have repeatedly occurred where such neglect has resulted in the death of the child from a subsequent hemorrhage. Therefore, he should, as soon as possible, carefully tie the cord, even though the respiration and circulation have not been fully established.

It is best not to wait too long for success by these methods, but at once put in execution, artificial respiration.

Several methods have been proposed by which to imitate the natural play of the respiratory muscles. Perhaps the best is to place the infant in a sitting posture, and catching it by the arms, lift it up and set it down slowly and deliberately, say fifteen to twenty times a minute; as it is allowed to come down, the arms should be brought down and pressed firmly

against its sides. This imitates the alternate elevation and depression of the ribs, and tends to cause the expansion of the lungs and the consequent entrance of the air, and its subsequent expulsion.

Nothing, however, can be so effectual as the "mouth to mouth method." The infant having been prepared as previously indicated, the physician places his mouth to that of the child and forces the air directly into its lungs; the child's nose being held to prevent the escape of the air by that channel. The chest is then pressed on each side to expel the air, and these movements are continued alternately, until the child breathes naturally. This plan is more sure to overcome the atelectasis, and compel the lungs to perform their office.

As artificial respiration has been repeatedly known to succeed even after a long time has elapsed prior to the child's showing signs of life, these efforts should not be too readily intermitted, and particularly, so long as there is present any evidence of the heart's action. While these efforts are being made, the child

should be kept warm, and in some cases good results have followed the use of stimulating injections into the rectum.

When there is reason to apprehend the presence of foreign bodies in the air passages, which will interfere with the respiration, these may be removed by the insertion of a catheter into the trachea, through which these bodies may be drawn by suction. The catheter may also be employed as an additional means to insure the entrance of the air into the lungs, and the irritation caused by its presence often excites spasmodic attempts at inspiration. Never cease these efforts while the slightest evidence of life is present, nor under any circumstances, for at least one hour.

The author would take this opportunity to caution the physician against too readily giving a certificate that the child has been born dead. He should remember that no child is born dead, even though it has never breathed, if there is the slightest evidence of life present. More particularly would this hold good when the heart's action is shown by pulsation in the cord

however feeble, and, *a fortiori*, when the heart or large vessels are felt to pulsate.

Several instances have occurred where heirship has been decided in accordance with the above.*

Breech Presentations.

Perhaps no complication of labor is so terrifying to the young obstetrician, and, it may be added, also to very many who can no longer be classed as tyros in the art, than those where the delivery of the head occurs after that of the body. The reasons for this dread need scarcely be discussed. Generally, the delivery is greatly retarded; then the probability of the death of the child adds much to the discomfort of the accoucheur, who early recognizes the dangers, while he is not always able to apply a remedy.

Here, as in all other forms of labor, the general principles, as before mentioned, apply with

* See "Evidence of Life in the Newly-delivered Child," by the author.

still greater force. When the labor has fully commenced, the physician should remember that he has not the advantage of the firm wedge, as in a head presentation, to aid in the dilatation of the os uteri; hence, he may very properly and profitably call to his aid the invaluable chloral, which always acts so beneficently in procuring the relaxation of the circular fibres of the mouth of the womb. Especial care should be had, not by any inadvertence to prematurely rupture the membranes, as thus is lost one great aid in promoting the full dilatation, while the child is exposed to greater danger by reason of the compression of the cord and the almost certain cutting off of its blood supply.

But, when the rupture has occurred, every effort must at once be made to promote a speedy termination of the delivery. Still, let nothing be done hastily or without due consideration. Should the breech descend without delay, all is well, no interference is called for; but when the descent is delayed, it is justifiable and proper for the accoucheur to

bring down one leg, which almost invariably will, by this much reducing the volume occupying the outlet, enable the delivery to go on more rapidly. The labor is also now more at the will of the accoucheur, who can employ traction as it becomes necessary.

The condition of the child must be the index for the action of the physician. When he perceives that its life is endangered by further delay, he may aid the descent of the body by traction upon the leg, or by the application of the blunt hook in the groin, at the same time, having compression made above upon the parietes of the abdomen so as to give an additional impetus to the downward progress. Of course, as the child comes down, the pressure upon the cord becomes more complete, and it is best to draw down a portion of the cord, and thus remove this pressure to a certain extent. If possible, the loop thus drawn down should be caused to locate itself in that portion of the outlet which will be most likely to secure it from pressure. This loop also serves as a means to constantly test

the condition of the fœtal circulation. In a number of instances, the forceps have been applied to the breech, and gentle traction has thus been made. Still, this is a means from which but little can be anticipated, and if unskilfully employed would be capable of resulting in great injury to the delicate bony structure of the fœtal pelvis.

In the absence of the blunt hook, or sometimes preferably, recourse may be had to a fillet or band passed over the bend of the leg at the groin, by which the proper amount of traction may be made. Occasionally, the difficulty of passing such a band necessitates the use of a gum catheter or bougie, or the little instrument with an eye on the end of a watch spring often employed for plugging the posterior nares in cases of epistaxis.

As the body is brought down, it must be remembered that the arms are very liable to slip up alongside the head, and thus greatly add to the complication. One or more fingers may be passed up, and the arms successively hooked and brought down, taking care to

sweep them across the body and thus obviate the danger of their fracture.

The body having been delivered, the final difficulty is with the head. Too often, by reason of incautious haste in bringing down the body, the chin has been caused to depart from the sternum, and the head is thus placed in the most unfavorable condition for its passage. This should be an additional reason for care in the efforts made to hasten the birth.

Of course, the physician now recognizes the fact that every moment's delay adds to the probability of the death of the infant. He should at once pass one or more fingers up to the child's mouth and endeavor to hook down the chin and with it the face so as to cause the head to resume its proper position for delivery. While this is being done, he is making firm traction upon the body and being aided above by abdominal compression.

This abdominal pressure serves an additional purpose, as very frequently, in breech presentations, the uterus is left in a relaxed condition,

and the delivery is liable to be followed by flooding.

When the delivery is not accomplished by these means, the use of the forceps is indicated. This is performed by bending the body of the child up over the maternal abdomen, and applying the blades as usual.

Nourishment of the Child.

The proper nourishment of the child in its first days of extra-uterine life demands the special attention of the physician. As soon as the mother is rested from her fatigue, say in three, four, or five hours, according to the attending circumstances in each case, the infant should be put to the breast. Unfortunately, in too many instances, some officious attendant has already administered sugar, or molasses and water, catnip tea, or some one of the numerous abominations of the lying-in chamber, and the child, surfeited or sick, is illy prepared to make the proper efforts to grasp the nipple, and exert its powers of suction. This is con-

trary to the teachings of nature, and should be strictly prohibited.

Rigby remarks that "it is a general practice not to apply the child to the breast until the second or third day, upon the plea that there is no milk; a more erroneous and mischievous plan of treatment could not be devised, for it is a fruitful source of much injury as well as suffering both to the mother and her child. The child should be put to the breast whether there be signs of milk or not."

Before leaving his patient, it is the duty of the physician to caution her and her attendants against pursuing any such course, and to explain to them carefully and fully the reasons and the necessity for the early application of the child to its mother's breast. Much of its future indigestions, its colics and diarrhoeas, its sleepless nights and whining days, depend upon the actions of its care-takers in its early hours of life. Nature intended the mother's milk and nothing else as the food for the infant, and when the necessity does arise for any other mode of nourishment, it is

always to be regretted, and will in the vast number of cases result in ill-health and early death.

Another, and a great advantage obtained by attention to this point, is that an early secretion of milk is thus made probable, and there is less liability to trouble with the nipples. At this time, when the breasts are flaccid, the nipple is more easily drawn out and prepared for the office it has to perform. Whereas, when from any cause, the child is kept from the breast until later, the distension is great, the nipple is retracted, and suction is difficult, and the child, meeting with these obstacles, quickly becomes discouraged and can with difficulty be induced to continue its efforts. Or, by the vigor of its attempts to obtain the needed supply, the nipples become excoriated, and thus an additional trouble is produced. A point that may be made an efficient aid with the nurse, etc., is the fact that the first milk is of a peculiar nature, prepared especially to act as a purgative to the child, and thus cleanse the

alimentary canal of the tarry matters occupying it.

This again obviates a resort to castor oil and other dosings so habitually exhibited to the infant at this time. In this connection, it would be well to remember that the proper charge should be given to the nurse or other attendants, as to the avoidance of all medicaments, except by the advice of the physician.

Of course, as in everything connected with the parturition, due discrimination must be made; as, where the nipples are already in a tender condition, it would be well to postpone the efforts at suction until the lacteal secretion has really commenced and flows readily.

Prof. Barker regards the early application of the child to the breast as an important prophylactic measure against milk-fever.

Retracted Nipple.

Should the nipple be so drawn in that the child is unable to grasp it, or can only do so with great difficulty, the pipe should be em-

ployed to cause its elongation. In the absence of other means, a common clay pipe may be used, or even a bottle previously exhausted of its air by any of the usual methods may be applied. The areolæ should be well anointed prior to these applications, with lard or sweet oil.

Nourishment of the Woman.

It is gratifying to chronicle the fact that a great change has been observed relative to the nourishment of the female after her accouchement. It was formerly regarded as dangerous to allow her anything but the lightest diet, and even yet there is too much of that systematic process of starvation. Already exhausted by her efforts, loss of sleep, and loss of blood, she rather demands a full diet—at least, one which will enable her most readily to recuperate her forces. A woman should not be starved because she has had a baby. Long experience in this matter has shown the benefits to be derived from the proper nourishment of the lying-in woman, and the injury resulting from an opposite course.

Parturition, other things being equal, is a natural physiological process. Hence there exists no sound reason why the woman who has just been delivered should be starved or half dieted on water-gruel, or weak tea and dry toast, for days, and then gradually, even fearfully, be permitted to return to her usual regimen. On the contrary, the reverse obtains, she requires nourishment. Even in a perfectly normal labor, there is more or less exhaustion, loss of blood and of nerve force, and generally, she craves food, her system demands it, and her digestive organs are prepared to accept and assimilate it, in order to make good the loss she may have undergone. Let her then have nutritious, easily digested food, and in sufficient quantity. Perhaps the earliest obstetrician to take this common sense view was Denman, who immediately adopted for the woman a diet similar in all respects to that used by her previous to delivery.

Leishman says: "The old method of treatment by starvation during the first few days, when the diet was confined to tea, water

gruel, or arrowroot, finds few, if any, supporters at the present time. Nothing indeed could be more irrational than such treatment, or more likely to retard recovery and discourage the lacteal secretions, so that it will be quite proper after the first day, at least in the great majority of instances in which the patient has had some sleep, to give chicken soup or beef tea, in addition to dry toast, gruel, or arrowroot and sago, which are properly given at this stage as being substances easy of digestion."

Schroeder says: "Immediately after delivery there is little or no appetite, and therefore, broths, soups, an egg and some bread are sufficient. As a beverage, milk is to be recommended. If the woman, however, should have an appetite, she may have sufficient meat, and on the following days also some vegetables."

Prof. Barker says: "The theory that a puerperal woman is in an inflammatory condition, or in a state predisposed to inflammation, has in a great measure governed the profession, and has been inculcated by most of the obstet-

ric authorities from Celsus down to the present time. They have consequently taught that a puerperal woman should be restricted to what was termed an antiphlogistic diet. . . . At the present time a change of practice more in accordance with sound physiology, reasoning, and good sense is rapidly taking place. . . . Is not the theory a strange one that the organs connected with parturition will be more rapidly restored to their condition prior to conception ; that the metamorphosis of tissue, called involution, will be more easily and effectually accomplished, and that the new function of lactation will be more surely and perfectly established by depriving the system of its accustomed alimentation?" He continues: "I cannot doubt that in all ages there must have been some whose practice was governed by a sound intuitive judgment and good sense, and who have therefore freed themselves from the fetters of professional tradition, and followed a rule similar to that inculcated by Denman. I should say in general terms, give the puerperal woman as good nutritious food

as she has an appetite for and can easily digest and assimilate. You will at first find many nurses who will not accept these views, and they may fail to fully carry out your directions in this particular ; but my experience has been that after a time the intelligent ones become enthusiastic converts to this course. The woman, exhausted by labor, first needs rest. This gained, as soon as she shows any desire for food, give that which is most acceptable to her, and which will best sustain her, a cup of good clear beef soup, or of chicken or mutton broth. There are those whose instincts and habits lead them to prefer a cup of tea, or gruel, or panada. Very well, only insist that they take enough, then, as soon as the appetite will permit, guided only by this and the general condition of the woman, and not by the question of time, whether it be the third or the ninth day, gradually give solid food, as birds, poultry, tenderloin of beef, or a mutton chop. . . . By following this course of regimen, I believe you will find that your patients rest and sleep better, and their functions are

established with less disturbance than they would be with a spare or insufficient diet. . . The function of lactation is thus generally established without that disturbance of the system which was called milk-fever, and was formerly so common. It is certainly more in accordance with sound physiological principles to feed puerperal women upon easily digestible nutritive articles, than to administer that which contains but little nourishment and a larger amount of indigestible residue. There are many puerperal diseases mainly due to exhaustion and inanition. In short, I will say that I have seen much suffering and many diseases in puerperal women, where one of the chief elements was defective nutrition; but I have never seen the slightest evil result from good, ample, judicious alimentation."

The value of milk as an article of diet for the nursing woman has been most forcibly shown by the experience of Dr. Robert P. Harris of Philadelphia, as detailed in a paper published by him in the *Amer. Journ. of Obstet.*, vol. ii. p. 675. This article of food

should be in addition to her other diet, and partaken of in small quantities frequently repeated. Chocolate, cacao, and broma made with a large proportion of milk generally prove of great value in similar cases, and should always be employed prior to the abandonment of all efforts on the part of the mother to nurse her infant.



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